Impact of Green Supply Chain Management Practices on Enterprise Performance in Furniture Industry: A Review for Conceptual Model

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Impact of Green Supply Chain Management Practices on Enterprise Performance in Furniture Industry: A Review for Conceptual Model

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Based on literature review, this study proposed a conceptual model to measure impact of green supply chain management (GSCM) practice on the performance of the enterprise in the furniture industry at Jepara. The model attempts to explain how the performance outcome of GSCM practice is differently between enterprises which is depend on the type of GSCM practice and characteristics of an SME (product orientation and enterprise scale). This conceptual model consists of seven hypotheses. Three of hypotheses are about two type of furniture workshops category (indoor and outdoor furniture) and their effect on the GSCM practices and performance. Three others are about three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect on the GSCM practices and performance. One hypothesis is about the interaction of two types of furniture workshops category (indoor and outdoor furniture) and three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect on the GSCM practices and performance. To test the conceptual model empirically, this study plan to conduct in-depth interviews and design a fixed-choice question and handed directly to the owner of the enterprise of furniture as the respondent.

Keywords: Green Supply Chain Management Practice, Green Supply Chain Performance, Furniture Industry, Jepara.

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1. INTRODUCTION

The wood furniture industry includes manufacturing of furniture parts and their assembly with appropriate finishing operations. Basic materials in the industry are wood and wood-based materials (plywood, hardboard, MDF, HDF, OSB, etc.). Other materials, such as metal, foam, cloth, and plastic, are also used. The furniture manufacturers predominantly belong to the group of small and medium companies.[33] Out of the 15 major exporters, six are developing countries (viz. Brazil, China, Indonesia, Malaysia, Mexico and Thailand) and four transition economies (viz. Czech Republic, Poland, Romania and Slovenia). These 10 countries tend to be large-volume exporters and low-volume importers of furniture (thereby being large net exporters).[45] The international trade in furniture is of great value to Indonesia, whose annual furniture exports in 2012 are valued at US$ 1.79 billion, more than half of which is contributed by wooden furniture. Furniture making is central to the history and culture of Jepara, a district in Central Java, Indonesia. About 10% of the furniture made in Indonesia comes from Jepara, which has about 12,000 furniture business units and processes an estimated 0.9 million cubic meters of wood each year. The furniture industry accounts for about 26% of the district's economy. Annual exports of Jepara furniture in 2012 were valued at US$110 million.[70] Recently, furniture industry from Jepara fierce competition with China and Vietnam in both the domestic and international markets. China was able to produce furniture massively with good quality and low prices, while Vietnam is a newcomer that grew rapidly. ASEAN-China Free Trade Agreement (ACFTA), which commenced in 2012, made the competition even tougher than before.[71]

There were some problem related to environment faced by the furniture industry in Jepara, i.e., sustainable forestry practices (e.g., illegal logging) and solid waste generation. Illegal logging

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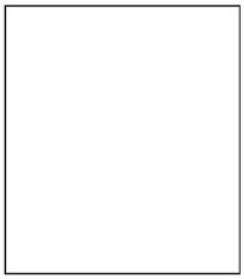
which occurred in forest state owned companies in Java (PERHUTANI) caused wood scarcity, particularly teak and mahogany. To overcome this problem, the furniture industry can eliminate illegal wood from their supply chain by increasing their use of certified wood. Then, related to solid waste generation, furniture industry also throws away an amount of wooden residue from the manufacturing process. The types of residues vary according to types of manufacturing process such as residues from sawmills, residues from plywood mills, residues from wooden furniture manufacturing.[5] These untreated residues can cause many damages both economic and environmental. So, treating this residue is necessary to overcome this problem, the furniture industry can reuse and recycle the wood waste or use the wood waste as an energy or heat source. The recycling of wood waste into usable products has been studied for many years.[16, 46] In these reuse products, particleboard has found typical applications as flooring, wall and ceiling panels, office dividers, bulletin boards, furniture, cabinets, counter tops, and desktops,[96] and it seems that the manufacture of particleboard from recycled wood based wastes is the most common way to reuse them. The other



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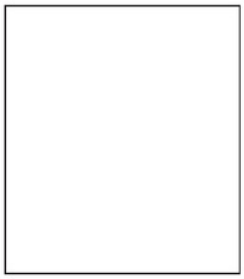

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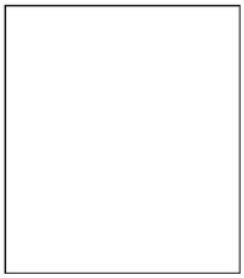

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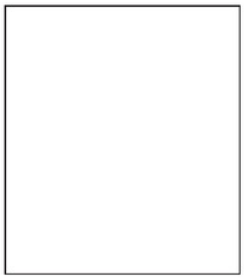

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solution to minimize the untreated residue, the industry, furniture can redesign their processes and products according to the principles of design for Manufacturing and Green Manufacturing.[32]

Based on the problem related to the environment and the solution offered to overcome the problem, it seems that enterprise of furniture industry in Jepara have to ensure its own supply chain practicing green initiative. These points of view are very important in order to develop sustainable industry. Sustainable within the concept of supply chain becomes more interesting for practitioners and academicians.[8, 55, 65, 97] According to Nikbakhsh[64] incorporating environmental sustainability practices in the supply chain are often referred to as green supply chain management (GSCM). Implementation of GSCM practice not only allow firms to achieve substantial cost saving, it would also enhance sales, market share, exploit new market opportunities, which lead to greater profit margins.[72] This performance outcome of implementation of GSCM depends on the setting of green chain management practices conducted by the enterprise.[48] Some studies such as Diabat and Govindan[20] argued that GSCM practices comprise of green design, reducing energy consumption, revising/recycling material and packaging, reverse logistics and environmental collaboration in the supply chain. Others, such as Wu et al.[99] claimed that GSCM practices include cleaner production, number of patents, internal service quality, green design, green purchasing, and green innovation. Testa and Iraldo88 proposed GSCM practices include the sale of excess inventory, sale of scrap and used material, environmental auditing programs, commitment from senior managers. There are so many practices that related to GSCM, therefore, is that there is a lack of consensus on the impact of GSCM practices on performance outcomes. This conflict was recognized and discussed in different studies including those by Eltayeb et al.,[23] and Zhu et al.[108] Zhu et al.[108] argued that the conflicting findings have the potential to become a barrier for organizations that intend to implement GSCM.

Hence, the purpose of this study is to develop a conceptual model to measure impact of GSCM practice on performance of the enterprise in the furniture industry in Jepara. The model attempts to explain how the performance outcome of GSCM practice is differently between enterprises which is depend on the type of GSCM practice and characteristics of an SME (product orientation and enterprise scale).

This paper will be organized in a traditional format. Following this introduction, Section 2 presents a literature review of GSCM which is consist of the concept of GSCM, green supply chain management practice, the effect of GSCM practice on organizational performance, the effect of organizational size and the type industry on the performance of GSCM practice. Section 3 presents an overview of the relationship of GSCM practices and performance of SMEs furniture in Jepara and based on this overview, the conceptual framework and some hypothesis is constructed. Then, Section 4 will be consist of some conclusion and suggestion for future research directions.

2. LITERATURE REVIEW ON GREEN SUPPLY CHAIN MANAGEMENT

2.1. The Concept of Green Supply Chain Management

Since the concept of GSCM was first put forward by US Michigan State University in 1996,[39] GSCM is gaining increasing interest among researchers and practitioners of operations and supply chain management. GSCM is an approach to improve performance of the process and products according to the requirements of the environmental regulations.[43] GSCM covers all phases of a product's life cycle from design, production and distribution phases to the use of products by the end users and its disposal at the end of product's life cycle.[7]

GSCM and Conventional SCM differ in various ways. GSCM takes considerations to ecology as well as economy as an objective, while Conventional SCM is usually concentrated on economy as a single objective. GSCM is green, integrated and ecologically optimized, while Conventional SCM does not take into consideration human toxicological effects.[6, 30, 42, 56] Conventional SCM concentrates more on controlling the final product; no matter harmful its effects are to the environment during production and distribution. Ecological requirements are key criteria for products and productions and at the same time the company must assure its economic sustainability by staying competitive and profitable.[42, 56]

There are several different definitions of GSCM. GSCM can be defined according to the study of philosophy in which the elements of supply chain management (or SCM) and the environment are combined in one concept.[104] Narasimhan and Carter[63] defined GSCM as involving the purchase of methods that reduced the use of materials in addition to recycling and reuse. Godfrey[31] defined GSCM as company practices that continuously monitor the environmental impact of a supply chain and improve its results. Simpson and Power[81] considered GSCM as the closed form loop of environment's physical distribution activity, which involves reuse of materials and products, when defining the green procurement activity between a purchaser and a supplier from both the internal and external perspectives of an organization. Srivastava[84] defines GSCM as integrating environmental thinking into supply-chain management, including product design, material sourcing and selection, manufacturing processes, delivery of the final product to the consumers as well as end-of-life management of the product after its useful life. Kovács (2008) defines the GSCM as a strategy to minimize the negative impact on the environment through activities within the organization and supply chain. It also prioritizes cooperation with suppliers and customers in the product development process. Sarkis et al.[77] defines GSCM as integrating environmental concerns into the inter-organizational practices of supply chain management including reverse logistics.

2.2. Green Supply Chain Management Practice

GSCM implementation difficulties can be intensified by the complexities associated with broader organizational complexities such as size and relationships,[91] or specific activities such as product return, recycling, remanufacturing, inspection, and quality checking. Similar to the concept of supply chain management, the boundary of GSCM is dependent on researcher goals and the problems at hand, e.g., should it be just the procurement stage or the full logistics channel that is to be investigated.[51] Zhu et al.[106] classify GSCM activities to internal firm activities: internal environmental management (IEM) and eco design (ECO), and external activities done in green purchasing (GP), customer cooperation for environmental concerns (CC) and investment recovery (IR). IEM and ECO can be implemented and managed by an individual manufacturer. Accordingly, ECO and IEM are defined as internal GSCM practices. GP and CC involve cooperation with supply chain partners, whereas IR needs partial cooperation with

customers. Thus, GP, CC, and IR are defined as three external GSCM practices.[109]

IEM become part of internal GSCM practice is based on the assumption that senior managers' support often, a key driver for successful adoption and implementation of most innovations, technology, programs and activities.[37] To ensure complete environmental excellence, top management must be totally committed.[74,110] Bowen et al.[9] used middle managers to find positive relationships between middle managers' perceptions of corporate environmental productivity and environmental management. ECO is a critical factor governing the environmental impacts of a manufactured product since materials and processes are selected at the design stage. No matter where in the product life cycle a product or process lies, most of the environmental influence is "locked" in at the design stages when materials and processes are selected and product environmental performance is largely determined.[53]

GP is one main aspect of external GSCM practices implementation. In some cases, GP has been considered as the complete scope of GSCM practices implementation,[95] while in other studies GP is just an element of GSCM practices implementation.[61] Zsidisin and Hendrick[111] identified key factors for environmental purchasing, such as providing design specification to suppliers that include environmental requirements for purchase items, cooperation with suppliers for environmental objectives, environmental audit for supplier's internal management and suppliers' ISO14001 certification. Compared with GP, CC has gained less attention. Researchers have identified opportunities for suppliers to cooperate with their customers and even affect the design and development of their environmental practices.[51,106] The last external GSCM practices is IR. Both United State and European enterprises have considered IR as a critical aspect for GSCM practices implementation.[111] IR refers to an organization's strategic use of reverse logistics, recycling, redeployment, reselling and similar techniques to derive greater value from materials and products. IR seeks to turn surplus assets into revenue by selling idle assets, reducing storage space and deploying idle assets to other corporate locations to avoid purchasing additional equipment or material.[2] IR can be legitimately viewed as both an economically and environmentally beneficial practice. Cottrill argues that at least 70% of every sales dollar generated by IR becomes part of profit, and this appears to be true in industries as diverse as computer assets, chemicals, forest products, power generators, and healthcare and consumer products.[67]

2.3. The Effect of Green Supply Chain Management Practice on Performance

The relationship between GSCM and organizational performance has been investigated[35] but the results have not been conclusive. Florida and Davison,[24] Geffen and Rothenberg,[27] Handfield et al.,[40] Hervani et al.,[41] Zhu et al.,[107] Azevedo et al.,[4] Large and Thomsen,[52] Chiou et al.[15] and Chen et al.[14] are some researcher that discuss the relationship between GSCM practices and firm performance.

There are two contrasting points of views about the relationship between environmental practices and organizational performance. The first point of view argues that many managers believe that environmental management consists simply of compliance with regulations, and that a trade-off exists where increased level of environmental management results in increased cost.[94] This relationship might exist in part due to increased costs associated with the transference of externalities, such as the cost of polluted air, back to the firm.[47] Gallop and Roberts[25] studied the effects of environmental regulations on the cost of operations in the electricity utilities industry and found a similar effect environmental regulations were associated with a decline in industrial productivity.

The second point of view suggests that GSCM practices can improve both social, economic (direct and indirect), and environmental performance simultaneously, as the study proposed by Teuteberg and Wittstruck[2]. Therefore the study proposed by Teuteberg and Wittstruck[89] differed from others on GSCM performance as most of these studies focused primarily on environmental, operational and economic performance.[4,17,34,107] The social dimension of sustainability relates to the human capital of the supply chain. Improving sustainability with respect to the social dimension involves developing and maintaining business practices that are fair and favourable to the labour, communities, and regions touched by the supply chain. Social performance indicators are grouped into three categories, i.e.:

(i) workplace: refers to the internal human resources, i.e., those who work within the supply chain;

(ii) Community: refers to all people outside of the supply chain, including those who are directly and indirectly affected by the chain's performance;

(iii) institutions/systems: refers to the internal and external systems, procedures, and values that relate to the social dimension.[83]

In research conducted by Varsei et al.,[92] social performance of sustainable supply chain is measured by four primary social dimensions (introduced by GRI) including labour practices and decent work conditions, human rights, society, and product responsibility.[36] The social dimension of sustainability relates to the human capital of the supply chain.

Gil et al.,[29] Montabon et al.,[60] Rao and Holt[73] and Wong et al.[98] are some researchers that can prove a positive direct relationship between corporate environmental management practices such as internal and external GSCM have a direct positive relationship with an organization's economic performance as part of 'win-win' propositions. Bowen et al.[10] suggested that economic performance is not being reaped in short-term profitability or sales performance. Revenues can be positively impacted when customers prefer the products of environmentally friendly firms,[103] resulting in increased market share vis-a-vis less environmentally oriented competitors. Revenues can be positively impacted when costs can be lowered, i.e., firms invest in environmental management systems that result in a decrease in accidental environmental releases and liability. Costs may be reduced through proactively managing environmental regulations, which may create barriers and first-mover advantages that are difficult for competitors to imitate.[18]

The others have shown that GSCM practices can indirectly affect economic performance in a positive manner through improved operational performance. In this case, enterprises have developed a diverse set of initiatives for greening SCM, including screening suppliers for environmental performance, providing training to build supplier environmental management capacity, and developing a reverse logistics system to recover products and packaging for re-use and remanufacture.[50] There is also an "eco-efficiency" argument where operational performance improvement can reduce consumption of materials and waste generation, and thus cut down the costs for material

purchase and waste treatment or discharge.[66] Most companies can gain performance benefits through internal GSCM practices such as ISO14001.[68, 79] Sustainable management practices with a long term orientation can bring significant sales growth, return on assets, and profit before taxation, and cash flows from operation.[1] Inter-organizational relationships may provide formal and informal mechanisms that promote trust, reduce risk, and in turn increase innovation and profitability.[21, 100] Environmentally sustainable initiatives can improve resource efficiency, also relate to improved economic performance.[102] Rothenberg et al.,[75] Seuring and Muller,[80] and Simpson and Power[82] are several studies that have argued for and shown a strong relationship between lean (operational) and green (environmental) practices internal to organizations and across the supply chain.

2.4. Effect of Type of Industry on Green Supply Chain Management Practice and Performance

Most of the environmental influence of any product or material is 'locked' into the product at the design stage of a product, when materials and processes are selected and product environmental performance is largely determined.[54] Based on this condition, depending on the type of industry as well as size and geographic location, different companies are likely to put more emphasis on specific green areas and activities.[86] Not only different on specific green areas and activities, Nakao et al.[62] found that type of industry also influences the relationship between corporate environmental performance and corporate performances. Based on this condition, impact of the type of industry on the environment has been used by several studies to be control of the relationship between corporate environmental issues and corporate performances.[19, 26, 76, 78, 93] Therefore, the type of industry will be considered as a control variable in this study.

2.5. Effect Organizational Size on Green Supply Chain Management Practice and Performance

According to Zhu et al.[106] organizational size is a critical characteristic in the adoption of innovative GSCM practices. Organization size could influence the extent of engagement in green supply chain management practices and the ability to influence cost and environmental performance. Although the relationship between organizational size and GSCM practices is not expected to be linear since GSCM practices is not expected to increase indefinitely as companies grow larger. Medium and large sized organizations are more advanced than their smaller size counterparts on most aspects, but not necessarily all of these GSCM practices. ISO14001 certification and environmental management systems have significant implementation differences between large, medium and small sized organizations. Generally a larger resource-based aspects such as the greater capacity or slack characteristics of larger organizations that support the commitment with voluntary environmental strategies, or because large organizations are subject to higher pressure by external stakeholders to comply with environmental regulations and to become more environmentally friendly. Moreover, Min and Galle[58] found that large organizations are more likely to put pressure on their suppliers to comply with environmental regulation than the smallest dimension organizations; this can be explained due to their greater bargaining power. In line with Min and Galle,[58] Azevedo et al.[3] also found that large organizations present higher levels of implementation of eco-innovation practices and small organizations present lower levels. Briefly, the details of the construct and their literature base are presented in Table I.

3. HYPOTHESIS DEVELOPMENT

Prestvik's (2010) study of the Jepara furniture industry identified seven categories of business units: a workshop, log parks, sawmills showrooms, warehouses, dry kilns and ironmongeries. Furniture workshops are then further categorized according to their types of products: those that produce unfinished items from unprocessed round wood; those that purchase components, pieces and sets and then assemble them into a finished product; those that combine both these stages of furniture making; and those that produce only parts of furniture.[69] Most workshops, 89.5%, produce indoor furniture; 7.8% produce outdoor furniture. The remaining workshops produce carvings, handicraft and calligraphy.[57] This study will focus on furniture workshops category because, in this category, production process of making wood based furniture will include the sawmill process until the process of making a product. Outdoor furniture (or garden furniture) manufactures furniture for outdoor use; but, recently, this type of furniture is also used to produce furniture that will be used in the indoor as on the terrace, living room, dining room, and others. Indoor furniture made of various furniture and equipment used to fulfil the function of a room in the house, such as for a terrace, living room, family room, dining room, study room, bedroom, kitchen, library, and others. Although the type of furniture produced is similar, the motif and finishing of outdoor and indoor furniture is definitely different and it will be affect the wood residue resulted. Therefore, it is expected that industry type is a relevant variable to understand the type of implementation of GSCM.

Given the two differences and varying types of workshops category on Jepara furniture (indoor and outdoor furniture) and different industry are likely to put more emphasis on specific green areas and activities because environmental influence of any product or material is 'locked' into the product, the first, second and third hypothesis are posited:

HYPOTHESIS 1. *There exist two kinds of type of furniture workshops category (indoor and outdoor furniture) and their effect of the GSCM practices and social performance will be varied because motif and finishing of outdoor and indoor furniture is definitely different and it will be affect the wood residue resulted.*

HYPOTHESIS 2. *There exist two kinds of type of furniture workshops category (indoor and outdoor furniture) and their effect of the GSCM practices and economic performance will be varied because motif and finishing of outdoor and indoor furniture is definitely different and it will be affect the wood residue resulted.*

HYPOTHESIS 3. *There exist two kinds of type of furniture workshops category (indoor and outdoor furniture) and their effect of the GSCM practices and environmental performance will be varied because motif and finishing of outdoor and indoor furniture is definitely different and it will be affect the wood residue resulted.*

As stated before, size is a critical characteristic in the adoption of GSCM practices. One of the reason is the large companies have more resources to implement the GSCM practice. In Jepara, 98% of furniture workshops are classified as

Table I. Definition of constructs and literature base.

Constructs	Definition	Literature base
	Contextual factors and green supply chain management	
Organizational size	Organization size is operationalized by the number of employees the number of employees; three categories of the organization's size were considered, small scale (between 5 and 19 employee), medium scale (between 20 and 99 employees), and large scale (more than 100 employees)	Min and Galle;[58] Zhu et al.;[106] Azevedo et al.;[3] BPS[11]
Type of industry	Type of industry is assigned *based on* common characteristics shared in the products or services	Nakao et al.;[62] Tate et al.;[86] Delmas;[19] Gamero et al.;[26] Salama;[76] Sarumpaet;[78] Wagner[93]
	Green supply chain management practices	
Internal environmental management (IEM)	The practice of developing environmental as a strategic organizational imperative from the senior and mid-level managers	Zsidisin and Siferd;[110] Rice;[74] Bowen et al.;[9] Green et al.;[34] Zhu and Sarkis;[104] Zhu et al.;[106] Zhu et al.[109]
Eco design (ECO)	Environmentally-conscious design of a product and its packaging that aims at minimizing negative environmental impacts of the product and its packaging throughout its entire life and promoting positive environmental practices such as recycling and reusing of the product and its packaging	Vachon and Klassen,[91] Zhu et al.;[103] Zhu and Sarkis;[104] Zhu et al.;[106] Eltayeb et al.;[23] Zhu et al.[109]
Green purchasing (GP)	Environmentally-conscious purchasing practice that aims at ensuring that purchased items meets environmental objectives of the firm such as reducing or eliminating hazardous items, reducing sources of waste, and promoting recycling and reclamation of purchased materials	Carter et al.;[13] Zhu et al.;[103] Hamner;[38] Zhu and Sarkis;[104] Zhu et al.;[106] Eltayeb et al.;[23] Zhu et al.[109]
Customer cooperation for environmental concerns (CC)	Includes activities that aim at improving environmental performance and capabilities of customer at undertaking joint projects for developing green products and innovations	Canning and Hanmer-Lloyd;[12] Vachon and Klassen;[91] Vachon and Klassen;[90] Zhu and Sarkis;[104] Zhu et al.;[106] Zhu et al.[109]
Investment recovery (IR)	Strategy related to the use of recycling, remanufacturing, redeployment and reselling to generate value from materials, components and products or companies are able to turn some of the idle assets into profits and decrease the level of inventory.	Zsidisin and Hendrick;[111] Atkinson;2 Zhu and Sarkis;[104] Zhu et al.;[106] Zhu et al.[109]
	Green supply chain management outcomes	
Social	Social benefit that result from developing and maintaining business practices that are fair and favorable to the labor, communities, and regions touched by the supply chain	Sloan;[83] Teuteberg and Wittstruck;[89] Varsei et al.[92]
Economic	Financial benefits that result from green supply chain initiatives. Economic outcomes include profitability, revenue growth, increase in market share, and increase in productivity	Klassen and Closs;[59] Stock et al.;[85] Zhu and Sarkis;[104] Zhu et al.;[106] Eltayeb et al.;[23] Zhu et al.[109]
Environmental	Positive consequences of green supply chain initiatives on the natural environment inside and outside organizations. They include a reduction of solid/liquid wastes, reduction of emissions, resource reduction, and decrease of consumption for hazardous/harmful/toxic materials, decrease of frequency of environmental accidents, and improved employee and community health	Geyer and Jackson;[28] Zhu and Sarkis;[104] Zhu et al.;[106] Eltayeb et al.;[23] Zhu et al.[109]

small-scale businesses 1.9% are medium-scale and 0.1% are large-scale. On average, wood consumption of small-scale furniture business unit is about 104.15 m^3 per year, while medium and large scale are about 282 m^3 and 1,115 m^3 per year.[44] This condition will also affect the wood residue resulted, and finally, it will be affect the implementation of GSCM practice and performance resulted. In the present study, the variable "organization size" is operationalized by the number of employees; small scale (between 5 and 19 employee), medium scale (between 20 and 99 employees), and large scale (more than 100 employees), according to the organizational criteria put forward by the Badan Pusat Statistik (BPS) 2014.

Given the three different and varying scales of enterprise of Jepara furniture (small, medium, and large) and different scale are likely to put more emphasis on specific green areas and activities because they have different resources and produce different amounts of wood residue, the fourth, five, and sixth hypothesis are posited.

HYPOTHESIS 4. *There exist three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect of the GSCM practices and social performance will be varied because they have different resources and produce different amounts of wood residue.*

HYPOTHESIS 5. *There exist three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect of the GSCM practices and economic performance will be varied because they have different resources and produce different amounts of wood residue.*

HYPOTHESIS 6. *There exist three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect of the GSCM practices and environmental performance will be varied because they have different resources and produce different amounts of wood residue.*

Then, given the two different and varying types of workshops category on Jepara furniture (indoor and outdoor furniture) and

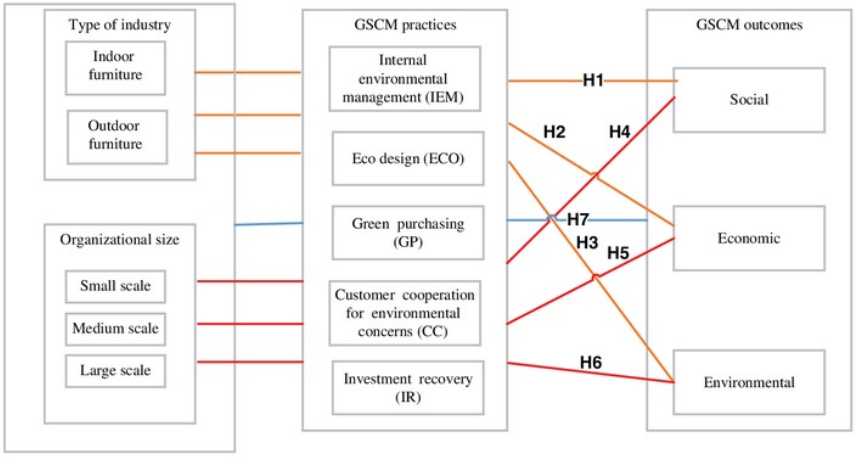

Fig. 1. A conceptual model.

three different and varying scales of enterprise of Jepara furniture (small, medium, and large), the hypothesis number seven is posited.

HYPOTHESIS 7. *There exist two kinds of type of furniture workshops category (indoor and outdoor furniture) and three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect of the GSCM practices and performance will be varied.*

Based on all hypothesis, the conceptual model is depicted in Figure 1.

4. CONCLUSION

Based on literature review, this study proposed a conceptual model to measure impact of GSCM practice on performance of the enterprise in the furniture industry Jepara. The model attempts to explain how the performance outcome of GSCM practice is differently between enterprises which is depend on the type of GSCM practice and characteristics of an SME (product orientation and enterprise scale). This conceptual model consists of seven hypotheses. Three of hypotheses are about two type of furniture workshops category (indoor and outdoor furniture) and their effect on the GSCM practices and performance. Three others hypothesis are about three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect on the GSCM practices and performance. One hypothesis is about the interaction of two types of furniture workshops category (indoor and outdoor furniture) and three kinds of scale of the enterprise of Jepara furniture (small, medium, and large) and their effect on the GSCM practices and performance.

Based on the problem and objectives, this study is included in explanative type. It means that this study aims to obtain an explanation of the relationship between the variables of type of industry, organizational size, GSCM practices and GSCM outcomes through hypothesis testing. To test the conceptual model empirically, this study plan to conduct in-depth interviews with owner of enterprise of furniture. The study will use semi-structured interviews based on a predesigned interview protocol to ensure reliability and to systematically collect the data.[22, 87, 101] Each interview lasted approximately two hours. All interviews will be tape-recorded and transcribed for later analysis. This study also plans to design a fixed-choice question and handed directly to the owner of enterprise of furniture as the respondent who completes it on the spot and hands it back. A fixed-choice question requires the respondent to pick an answer from a given number of options. A fixed-choice questions will provide primary quantitative data, so that it can be processed with one-way and two-way analysis of variance (one-way and two way ANOVA) or confirmatory analysis. Additional information will be collected through follow-up telephone interviews and archival records.

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